



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/695,153 | 10/28/2003 | Peter L. Kellerman | 03-IMP-025 | 6460 |
| 29393 | 7590 | 02/10/2005 | EXAMINER | |
| ESCHWEILER & ASSOCIATES, LLC NATIONAL CITY BANK BUILDING 629 EUCLID AVE., SUITE 1210 CLEVELAND, OH 44114 | | | DANG, TRUNG Q | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2823 | |

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/695,153 | | KELLERMAN ET AL. | |
| | Examiner | | Art Unit | |
| | Trung Dang | | 2823 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11, 22-28 and 35-49 is/are allowed.
- 6) ☒ Claim(s) 10, 12-21 and 29-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/28/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10, 12-21, 29-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is rejected under 112, second paragraph as being indefinite because the citation "sidewall contacts" recited in claim 10 lacks antecedent basis.

Claim 12 and its dependent claims are rejected under 112, second paragraph as being indefinite because the citation "the substrate" recited in claim 12 lacks antecedent basis. It is unclear as to what the term substrate is referred to. Furthermore, the limitation "...a third electrically conductive layer having a plurality of portions electrically isolated from one another thereon, and electrically connecting the plurality of portions of the third electrically conductive layer to the respective plurality of portions of the

third electrically conductive layer” recited in claim 13 cannot be understood. It appears that the third electrically conductive layer is connected to itself.

Claim 29 and its dependent claims are rejected under 112, second paragraph as being indefinite because the citation “the semiconductor substrate” recited in claim 29 lacks antecedent basis. It is unclear as to whether the limitation “semiconductor substrate” is referred to the semiconductor platform or something else. The same is applied to claim 34.

Allowable Subject Matter

2. Claims 1-9, 11, 22-28, 35-49 are allowed.
3. Claims 10, 12-21, 29-34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
4. The following is an examiner’s statement of reasons for allowance:
Closest prior art of record is a reference to Anderson et al. (US

5,583,736 cited by applicants) and a reference to Shamouilian et al. (US 6,023,405).

With respect to Anderson's reference, the prior art teaches a monopolar electrostatic chuck (ESC), not a multi-polar ESC as claimed.

Moreover, Fig. 1 of the reference depicts a conductive silicon plate 11 formed on a metallic base plate 13, hence the reference fails to teach or suggest the claimed limitation "forming a first electrically conductive layer over a semiconductor platform..."

With respect to Shamouilian's reference, although the prior art discloses a multi-polar ESC in which conductive electrodes are covered with an insulative film 35a having protrusions (Fig. 1c), the prior art fails to teach or suggest the claimed limitation "forming a first electrically conductive layer over a semiconductor platform..." because the prior art forms electrodes 130, 135 on an insulative film 35b (or on metallic base 25). Consequently, the prior art fails to disclose the claimed feature regarding an insulative layer comprising a top surface having a plurality of MEMS protrusions since it is understood in the art that MEMS technology involves combining semiconductor process and micro-machining process to make the device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trung Dang whose telephone number is 571-272-1857. The examiner can normally be reached on Mon-Friday 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

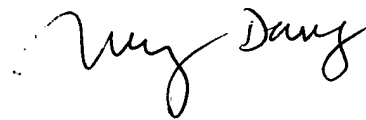
Application/Control Number: 10/695,153
Art Unit: 2823

Page 6

access to the Private PAIR system, contact the Electronic Business Center
(EBC) at 866-217-9197 (toll-free).

Trung Dang
Primary Examiner
Art Unit 2823

02/07/05

A handwritten signature in black ink, appearing to read "Trung Dang", with a stylized, cursive script.